Wisconsin
Department of Commerce

Approval # 20000003 TNK (Replaces 920079U)

Environmental & Regulatory Services Division
Bureau of Storage Tank Regulation
201 West Washington Avenue
P.O. Box 7837
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Wisconsin COMM 10 Material Approval

Equipment Enviro-Vault UL-2085, "Firesteel" UL-2085, Phoenix Subbase UL-142 and Double Wall UL 142 Tank.

Manufacturer Phoenix Products P.O. Box 3197 / 1727 Bennett St. Jacksonville, FL. 32206

Expiration of Approval: December 31, 2005

SCOPE OF EVALUATION

The Enviro-Vault, Fire Steel, Subbase, and Double Wall aboveground tanks manufactured by Phoenix Products has been evaluated for conformance with the current edition of the Wisconsin Administrative Flammable and Combustible Liquids Code, Chapter **COMM 10**. The subject double wall tanks are approved for use without a dike, subject to the limitations below.

DESCRIPTION AND USE

The Enviro Vault is a two hour protected storage tank with 135% secondary containment and interstitial monitoring tube, which has capacities from 60 to 15,000 gallons.
It's primary tank which shall be fabricated of 3 / 16" steel minimum thickness, air pressure tested at 3 PSI and shall be a fabricated U.L. 142 listed inner tank. The annular space between the inner and outer walls shall be filled with a minimum of six inches of concrete. The inner tank is enclosed in a polyethylene bladder to provide corrosion protection to the tank and to provide a path to the detection well for any product that may escape the primary tank. Tanks shall be provided with UL 2085 Listing and Labeled 10 gauges thick stainless steel overfill and equipment boxes welded to the

tank top. All tank outlets shall be 304 schedule 40 stainless steel threaded pipe.The vault comes complete from the factory or may have the concrete poured at the site by a factory-trained technician.

The Firesteel tank is a two hour protected generator base tank with enclosed second containment and interstitial release detection, which has capacities from 125 to 8,000 gallons. It's primary tank which shall be fabricated of 3 / 16" steel minimum thickness, air pressure tested at 3 PSI and shall be a fabricated U.L. 2085 listed protected generator subbase tank. The annular space between the inner and outer walls shall be filled with a minimum of six inches of concrete. The inner tank is enclosed in a polyethylene bladder to provide corrosion protection to the tank and to provide a path to the detection well for any product that may escape the primary tank. Tanks shall be provided with UL 2085 Listing and Labeled 10 gauges thick stainless steel overfill and equipment boxes welded to the tank top. All tank outlets shall be 304 schedule 40 stainless steel threaded pipe. Tank comes complete from the factory or may have the concrete poured at the site by a factory-trained technician.

The Subbase tanks are specified as a close top dike tank with a secondary containment. Tanks capacities from 80 to 8,000 gallons, which is provided with UL 142 listed special purpose generator sub-base tank. Tanks shall have primary walls and bottoms, and shall be minimum of (10) gauge steel. Phoenix tested the Primary tank at air pressure of (3) PSI and the secondary tank at air pressure tested of one and one-half (1-1/2) PSI using a leak solution. The dike and bottom shall be minimum of 3/16 " thick steel.

The Double Wall tanks are specified as a rated tank with enclosed secondary containment and interstitial release protection. Tank capacities from 25 to 15,000 gallons, which is provided with UL 142 listing. Tanks shall have primary walls and bottoms, and shall be minimum of (10) gauge steel. The dike and bottom shall be minimum of 3/16 " thick steel. Phoenix tested the Primary tank at air pressure of (3) PSI and the secondary tank at air pressure tested of one and one-half (1-1/2) PSI using a leak solution.

TESTS AND RESULTS

The inner tank is tested and listed to the U.L. 142 standard. And air pressure tested at 3 PSI.

LIMITATIONS / CONDITIONS APPROVAL

The Enviro-Vault, Fire Steel, Subbase, and Double Wall aboveground tanks is approved for compliance with the secondary containment requirements of s. **COMM 10.345 (1)** and **10.415 (7)(b)** and may be used without a dike, except in the case of

public access waste oil collection. Tanks for public access waste oil collection shall be provided with a dike in accordance with s. **COMM 10.33.**

Tanks up to 10,000 gallons capacity may be used for vehicle fueling in accordance with s. **COMM 10.415.**

When the annular space between the inner and the outer walls in the Enviro-Vault and the Firesteel tanks properly filled with concrete, are approved as providing a 2-hour rated enclosure to be used with the siting requirements of s. **COMM 10.415 (4).**

Compartmentalized tanks shall be constructed with a double bulkhead in accordance with U.L. Standard 142. All interstitial space between compartments shall be monitored for leaks. The interstitial space of a double wall tank shall be provided with either an external visual gage or an internal liquid or vapor sensor (s).

A catch basin shall be provided for spill prevention in accordance with s. **COMM 10.415 (12).**

Separate vehicle collision protection shall be provided by a barrier that meets the design requirements specified in s. **COMM 10.415 (8)(a).**

No attachments shall be made to the steel tank which violate or void the U.L. listing.

The Enviro-Vault and Firesteel, when properly filled with concrete, are approved as providing ballistics equivalent resistance in accordance with s**. COMM 10.415 (7)(b).**

All tanks associated with generator installation shall be fabricated and installed in accordance with the requirements of NFPA 37.

All tanks are approved as providing equivalent protection to the fencing requirement of **s. Comm 10.415 (5) (a)** if the following conditions are met:

1. Tanks shall be 6’ diameter / height or greater.
2. Tanks shall be a double wall construction.
3. Dusk-to-dawn lighting over the immediate tank area shall be provided in accordance with **COMM 16**.
4. Stairs or ladders attached to the vault shall be secured against unauthorized use.
5. All connection points shall be secured by a locking cap.

The system installer shall be certified by the department and in accordance with s. **COMM 10.91.**

All installation, testing and maintenance of the tank system shall be performed in accordance with the manufacturer’s recommendation and all applicable codes. In addition, a qualified technician shall conduct all necessary maintenance and calibration

procedures as recommended by the manufacturer to assure continued and proper operation of the system. Inspection must be conducted annually by a qualified technician and all respective documents maintained on site.

This approval will be valid through December 31, 2005, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The Department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement unless specified in this document.

Reviewed by: Ahmed Ghalib, Code Consultant

Approval Date: September 25, 2000

Approved by: S Mellan Schall

Sheldon Schall, Chief
Bureau of Storage Tank Regulation